Lab 3

Deadline: Moodle deadline on 28 Feb 2024

The task is to develop a Python program that assesses whether each string in an array of strings is a palindrome. The program should accomplish this without utilizing any built-in string functions.

```
#012345
import sys

def is_palindrome(input_string):
    """
    Check if the given string is a palindrome.

    Parameters:
    - input_string (str): The string to be checked.

    Returns:
    - bool: True if the string is a palindrome, False otherwise.
    """
    #WRITE YOUR CODE HERE

    # DONT WRITE Anything below


def main():
    # Initialize an array of strings for testing
    input_strings = ["madam", "hello"]

    for input_string in input_strings:
        # Check if the input string is a palindrome
        is_pal = is_palindrome(input_string)

        print("\nInput string is", input_string)
```

Requirements

1. **Input**
   - The program should take an array of strings as input. Each string in the array represents a word or phrase. The program will then determine whether each string in the array is a palindrome or not.

2. **Palindrome Check**
   - Implement the palindrome check algorithm without using any built-in string functions.
   - A palindrome is a string that reads the same forwards and backwards.

3. **Output**
   - The program should print either "Palindrome" or "Not a Palindrome" based on the result of the palindrome check.
   - The is_palindrome function should return true if the string is palindrome and false if the string is not palindrome.

4. **Save the File Offline**
   - Click the “Download Code” button/icon to save the file offline.

5. **Submission**
   - Include your Student ID as comment at the top of your code i.e #012345. Rename
   - the main.py file to lab3.py. Place the lab3.py in a folder and compress to a zip file.
   - Submit it to moodle.

6. **Grading**
   - (1 point) Correct submission of working code with no errors and loop implementation.
   - (5 point) Correct solution to the problem.